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EXAMINER
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ENERGY RESOURCES CONSERVATION BOARD
Calgary Alberta

LARIO OIL AND GAS COMPANY
APPLICATION FOR AN ORDER DIRECTING
THE PROPORTIONS OF GAS TO BE PURCHASED
IN THE WHITECOURT PEKISKO E POOL

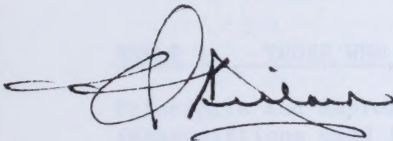
Decision 80-19
Application 800375

The Board has reviewed and adopted the report of its examiners, attached hereto, respecting an application by Lario Oil and Gas Company made pursuant to section 52 (4)(b) of The Oil and Gas Conservation Act and pertaining to the proportioning of gas produced from the Whitecourt Pekisko E Pool.

The Board directs TransCanada PipeLines Limited to acquire gas from each producer or owner offering gas for sale to it, in accordance with the formula described in section 3.3 of the examiners' report. When existing wells become eligible for inclusion in the proportioning formula, the Board directs that the wellbore net pays set forth by the examiners in Column 3 of Table 2 of the examiners' report, be used.

DATED at Calgary, Alberta on 20 October 1980.

ENERGY RESOURCES CONSERVATION BOARD



V. Millard
Chairman

Attachment

ENERGY RESOURCES CONSERVATION BOARD
Calgary Alberta

LARIO OIL AND GAS COMPANY
APPLICATION FOR AN ORDER DIRECTING
THE PROPORTIONS OF GAS TO BE PURCHASED
IN THE WHITECOURT PEKISKO E POOL

Examiners' Report
Application 800375

1 INTRODUCTION

1.1 Application

T. Fekete and Associates Consultants Ltd. (Fekete), on behalf of Lario Oil and Gas Company, applied pursuant to section 52 (4)(b) of The Oil and Gas Conservation Act, for an order directing the proportion of TransCanada PipeLines Limited's acquisitions of gas from the Whitecourt Pekisko E Pool (the pool) which it must purchase from each producer or owner offering gas for sale to it.

1.2 Hearing

The application was heard at a public hearing on 3 September 1980 by Board-appointed examiners G. A. Warne, P.Eng., M. J. Vrskovy, P.Geol., and P. M. Stanton, P.Eng.. Participants at the hearing are listed in Table 1.

TABLE 1 THOSE WHO APPEARED AT THE HEARING

Principals and Representatives
(Abbreviations used in Report)

Witnesses

Lario Oil and Gas Company
(Lario)

G. D. Metcalfe, P.Eng.

W. Deyeagher, P.Geol.

G. D. Metcalfe, P.Eng.

of Fekete

G. S. Brar, P.Eng.

of Fekete

J. R. Shouldice, P.Geol.

of Stratex Oil Ltd.

TransCanada PipeLines Limited
(TCPL)

E. W. H. Mallabone

D. G. Fonteyne, P.Geol.

R. R. B. Follett, P.Geol.

Energy Resources Conservation Board staff

N. Stalport

T. R. Keelan

W. A. MacDonald, P.Eng.

1.3 Background

The pool, as currently designated by the Board, contains nine wells of which five are on stream, three are capped, and one is abandoned (Figure 1). Four of the producing wells are operated by Petro-Canada Exploration Inc. (Petro-Canada), which also operates the gas processing facilities for the pool. Uno-Tex Petroleum Corporation owns the other producing well. TCPL is presently the sole purchaser of gas from the pool, while Pan-Alberta has one section (6-60-10 W5M) under contract but is not accepting gas at this time.

TCPL was declared common purchaser of gas from the pool by Order No. Misc. 7815 effective 13 September 1978. The order was issued as a result of an application by Mon-Oil Ltd., which holds an interest in section 6-60-10 W5M. The applicant drilled its well, Lario et al Whitecourt 6-7-60-10, in August 1978 and it was included in the pool by Order No. G 2769 effective 1 January 1980. Following unsuccessful attempts at reaching a sharing agreement, the applicant submitted the subject application in May 1980.

2 ISSUES

The examiners believe that the issues related to this application are

- the need for direction respecting the proportioning of TCPL's acquisitions from the pool, and
- if there is a need, the method of proportioning the common purchaser's acquisitions from the pool.

3 VIEWS

3.1 Views of Lario

Lario submitted that six pressure tests conducted in the pool between August 1978 and August 1980 indicate drainage has occurred and will continue to occur from section 7-60-10 W5M (section 7). Lario added that it had conducted lengthy negotiations in an effort to obtain a satisfactory basis for acquisitions from its lands, but without success. The applicant supported its submission with copies of correspondence with TCPL and Petro-Canada.

Lario interpreted the eastern erosional edge of the pool to be very close to lsd 6-8-60-10 W5M, and concluded that section 7, which contains its well, is entirely within the pool. It supported this interpretation with logs from the well in 6-8-60-10 W5M which it stated showed little erosion of the underlying Banff Formation. Since the geology is quite complex, Lario contended that it is difficult to define the pool edge precisely, and that the proportions should be based on the wellbore net pay and the corresponding drilling spacing unit area. It stated that

this proposal was consistent with the procedures followed for previous Board decisions concerning proportioning in pools of this nature.

Lario maintained that the method TCPL normally uses to apportion its gas acquisitions, which involves crediting reserves to undrilled tracts, is not equitable. It submitted that only the reserves underlying those sections with wells capable of production and tied into the gathering system should be considered in determining the basis for proportioning.

Lario also noted that TCPL had offered a fixed contract rate rather than a proportion of the pool withdrawals, and that this did not ensure against continued drainage from section 7.

3.2 Views of TCPL

TCPL stated that its policy, when designated the common purchaser for a pool, is to encourage the producers from that pool to agree among themselves on an equitable apportionment of purchases from the pool. Its offer to Lario was made only after Lario advised that an agreement had not been reached with Petro-Canada. The rate offered to Lario was determined solely on the basis of the reserves underlying section 7, which is the normal method used by TCPL in setting contract rates.

In determining the reserves of section 7, TCPL extrapolated the erosional gradient diagonally across section 7 to establish the pool edge and then modified this interpretation to give some weight to Lario's view. Thus, the most recent TCPL isopach shows about two-thirds of section 7 to be within the pool. TCPL also assigned a higher porosity for section 7 than for the rest of the pool, and this resulted in remaining established marketable gas reserves of $27.7 \times 10^6 \text{ m}^3$ which reflected an increase from the $20.0 \times 10^6 \text{ m}^3$ recognized initially by TCPL. Using a 1:7300 rate of take, TCPL proposed a minimum and maximum daily rate of $3.8 \times 10^3 \text{ m}^3$ and $4.7 \times 10^3 \text{ m}^3$ respectively.

TCPL maintained that the proportioning of gas purchases from the pool should be based on pool reserves, rather than solely on the reserves underlying those sections with capable productive wells.

3.3 Views of the Examiners

The examiners are satisfied that the pressure tests conducted by the applicant indicate drainage has occurred and will continue to occur from section 7 unless withdrawals commence from the section. The examiners are also satisfied that a reasonable, but unsuccessful attempt has been made to reach agreement on the basis of proportioning. The disagreement arises from the different geological interpretations and methods of proportioning gas production. There is therefore a need for the Board to direct the basis on which TCPL's acquisitions of gas from the pool are to be proportioned among owners in the pool.

The examiners note that the disagreement between the applicant and TCPL regarding the geological interpretation of the pool, concerns the location of the erosional edge of the pool in the vicinity of sections 7 and 8-60-10 W5M, and the net pay thickness of the applicant's well.

The examiners agree that the method adopted by TCPL, using the erosional gradient to determine the edge of the pool, is a common procedure. However, the examiners believe that this method does not provide the level of confidence necessary to adopt an isopached reserve, in this part of the pool, as the basis of proportioning. Further, there are geological uncertainties in other parts of the pool that also detract from the suitability of reserves determined by the isopach method as a basis for proportioning.

In view of the uncertain geology, and the need for a method of proportioning which remains applicable as the development of the pool progresses, the examiners conclude that the gas acquisitions from the pool should be proportioned among eligible wells on the basis of wellbore net pays and the areas of the production spacing units. This method of proportioning is consistent with that outlined in Decision 77-23. The examiners also conclude that only wells capable of production and tied into the gathering system should be considered eligible for inclusion in the proportioning formula.

The examiners believe the following formula (previously used in Decision 79-7) should be adopted since it is reasonable for this pool and will accommodate any future eligible wells in the pool.

$$\text{Proportion attributable to production spacing unit} = \frac{\text{net pay thickness at the wellbore in the spacing unit}}{\text{sum of net pay thicknesses at the wellbores of all eligible wells in the pool}}$$

The wellbore net pay thicknesses determined by the examiners, having regard for the geological interpretations submitted at the hearing and the views of the Board staff, are presented in Table 2.

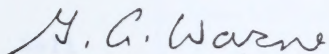
4 RECOMMENDATIONS

The examiners recommend that:

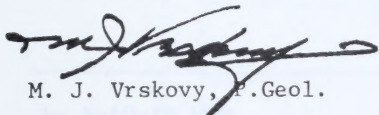
- (a) the Board direct the proportion of TransCanada PipeLines Limited's acquisitions of gas from the Whitecourt Pekisko E Pool that it shall purchase from each producer or owner,
- (b) TransCanada PipeLines Limited be directed to acquire gas from each producer or owner offering gas for sale to it in accordance with the formula described in section 3.3, and

- (c) when each existing well becomes eligible for inclusion in the proportioning formula, the wellbore net pays set forth by the examiners in column 3 of table 2 be used.

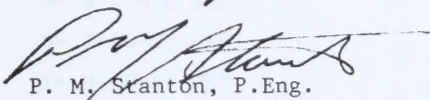
DATED at Calgary, Alberta on the 8th day of October 1980.



G. A. Warne, P.Eng.



M. J. Vrskovy, P.Geol.



P. M. Stanton, P.Eng.

TABLE 2 NET GAS PAYS FOR THE WHITECOURT PEKISKO E POOL

Well Location	1	2	3
	Wellbore Net Pay (m)		
	TCPL	Lario ^a	Examiners
6- 6-60-10 W5M	4.0		4.0
6- 7-60-10 W5M	2.1	3.0	2.5
11- 9-60-11 W5M	20.7		18.3
6-12-60-11 W5M	13.7		12.0
10-14-60-11 W5M	15.9		14.6
10-22-60-11 W5M	15.2		13.7
11-28-60-11 W5M	11.6		12.8
6-29-60-11 W5M	10.4		10.0

a Lario accepted net pays used by TCPL, except for its well in 6-7-60-10 W5M

* FLOWING GAS
 * CAPPED GAS
 + ABANDONED GAS

FIGURE 1 WHITECOURT PEKISKO E POOL

AND WELL LOCATIONS

TABLE 1
NET GAS TONS FOR THE WESTERN DISTRICTS 1960

Well Location	1	2	3
Well Location	1	2	3
1-10-10-10 W28	4.0	4.0	4.0
2-10-10-10 W28	4.1	4.1	4.1
11-10-10-10 W28	10.7	10.7	10.7
6-10-10-10 W28	12.7	12.7	12.7
10-10-10-10 W28	15.2	15.2	15.2
10-10-10-10 W28	12.8	12.8	12.8
11-10-10-10 W28	11.8	11.8	11.8
6-10-10-10 W28	10.9	10.9	10.9

a. Gas in storage for 1960 was 10.0 million cubic feet. Gas in storage for 1961 was 10.0 million cubic feet.

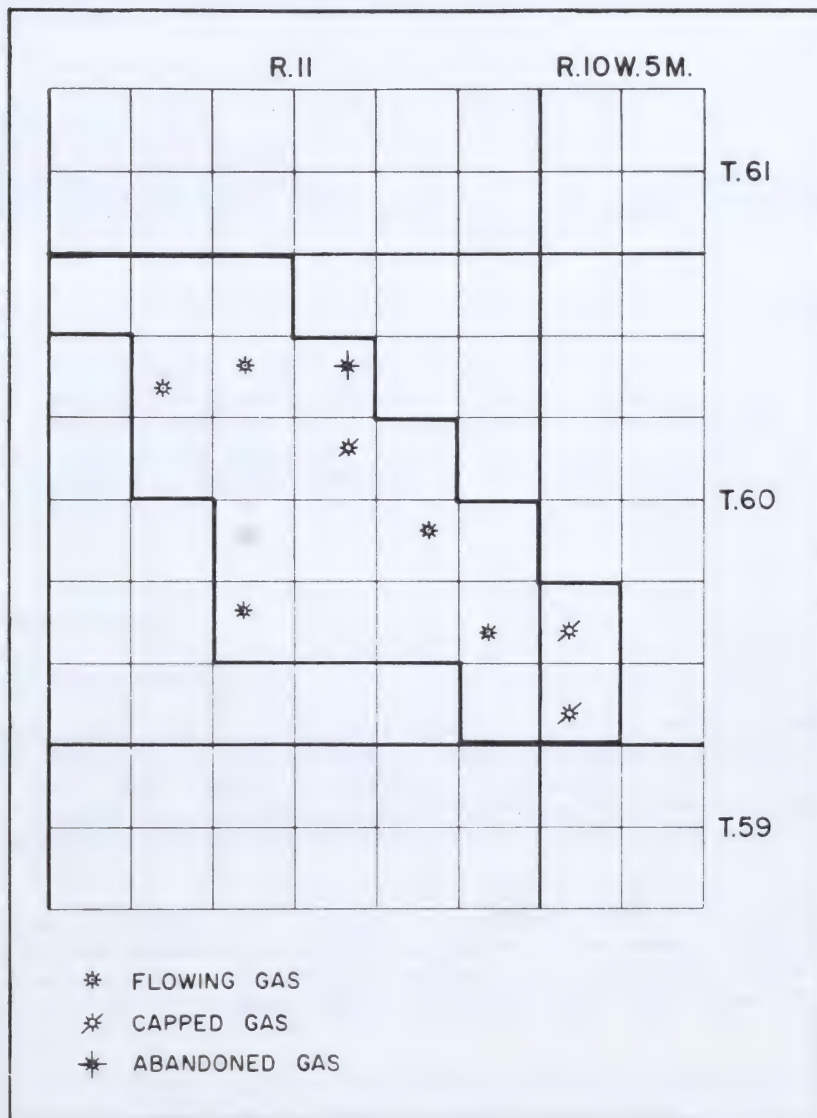


FIGURE I WHITECOURT PEKISKO E POOL

AND WELL LOCATIONS



Figure 1: Schematic diagram of the experimental setup. The diagram shows a rectangular structure with internal divisions, representing a complex layout or circuit. The structure is divided into several rectangular regions, with some regions containing smaller rectangular elements. The overall layout is symmetrical and organized, suggesting a systematic arrangement of components or a structured flow of information.

ENERGY RESOURCES CONSERVATION BOARD
Calgary Alberta

DECISION REPORT
NORTHWESTERN UTILITIES LIMITED
PERMIT TO CONSTRUCT A PIPELINE
IN THE NORTH EDMONTON AREA

Decision 80-20
Application 800204

CONTENTS	page
1 Introduction	1
2 Need for Additional Capacity	3
3 Pipeline Design	3
4 Route of the Pipeline	4
5 Summary of Board Conclusions	7
6 Decision	9

1 INTRODUCTION

1.1 The Application

Northwestern Utilities Limited (NUL) applied, pursuant the The Pipeline Act, 1975, for permits to construct a pipeline project in the North Edmonton area. The Pipeline is required to transport additional volumes of sweet natural gas from main transmission lines to existing distribution facilities supplying natural gas to customers in the North Edmonton area.

Application No. 800115, for a permit to construct Phase I of the project, as shown between points (a) and (b) on Figure 1, was heard concurrently with this application. A permit to construct was granted by the Board as a result of Decision Report 80-16 which addressed the issues of that application.

Application No. 800204, being considered by the Board in this decision report, is for a permit to construct a pipeline beginning at the termination point of Phase I of the project. The applicant's proposal is to construct approximately 7 kilometres (km) of 406.4 millimetre (mm) outside diameter pipeline from a point in legal subdivision 5, of section 6, township 54, range 23, west of the 4th meridian, to a point in Lsd 13-9-54-24 W4M, or from point (b) to point (f) as shown on Figure 1. This route utilizes an existing NUL right of way and parallels two existing pipelines. In addition to the applicant's preferred route, alternate routes identified as Alternative No. 1 and Alternative No. 2 were also proposed in Application No. 800204.

On Figure 1, the Alternative No. 1 route is identified as (b)-(e)-(g)-(h). This route utilizes the existing NUL right of way between points (b) and (e). Between points (e) and (g), this proposed route leaves the existing NUL right of way and aligns within the proposed pipeline corridor within the Edmonton Restricted Development Area (RDA). Between points (g) and (h) this alternative route utilizes the existing NUL right of way.

Alternative No. 2 route, as proposed by the applicant is shown as points (b)-(c)-(d)-(e)-(g)-(h) on Figure 1. This alternative route is almost completely aligned within the proposed pipeline corridor in the RDA.

The Board also considered at the hearing a route proposed by the Minister of the Environment in a written submission filed with the Board pursuant to Alberta Regulation 149/71, Section 26, of the Board's Rules of Practice. This route is indicated on Figure 1 as the Alberta Environment route.

1.2 The Hearing

A public hearing of the application was held before the Energy Resources Conservation Board on 19 August 1980 in Edmonton, Alberta, with G. J. DeSorcy, P.Eng., C. J. Goodman, P.Eng., and N. Strom, P.Eng., sitting.

THOSE WHO APPEARED AT THE HEARING

Principals and Representatives (Abbreviations Used in Report)	Witnesses
Northwestern Utilities Limited (NUL) R. Bailey	R. Kupin, P.Eng. S. B. Harris, P.Eng.
Energy Resources Conservation Board staff (Board staff) M. J. Bruni, Board Solicitor G. C. Dunn, P.Eng. B. C. Hubbard	

The Board has reviewed the application and considers the issues to be:

- (a) the need for additional capacity,
- (b) the adequacy of design, and
- (c) the route of the pipeline.

2 NEED FOR ADDITIONAL CAPACITY

2.1 The Applicant's Views

The applicant contended that the Phase II loop was necessary to meet gas demand requirements during the coming winter heating season and to serve customer requirements in the rapidly expanding areas in North Edmonton and St. Albert. NUL stated that its normal planning allows for 10 per cent contingency, and that without the completion of the Phase II loop, there would be substantially less than the 10 per cent contingency for the 1980-81 heating season, even assuming the completion of the Phase I loop.

NUL representatives indicated they were highly confident that no reductions in service would occur if the Phase II looping was not completed prior to this seasons winter peak load. They stated that, even though normal contingency capacity could not be maintained without the construction of the Phase II loop, they did not expect to be able to complete it prior to the coming winter peak load since the company intended to construct the Phase II pipeline without the aid of subcontract construction companies.

2.2 The Board's Views

The need for additional capacity was addressed in Decision Report 80-16, reflecting the Board's decision with regard to Phase I of NUL's North Edmonton looping program. The Board is generally satisfied that there is an established need for additional capacity to meet the rapidly increasing demand for natural gas in this area and agrees that a contingency factor of 10 per cent is a reasonable and prudent design criteria. Even though the applicant has indicated the need for additional capacity during the coming winter, the Board notes that NUL has not deemed it to be so critical as to warrant scheduling and subcontracting the work to satisfy the coming winter peak. The Board therefore concludes that NUL can meet its commitments for the 1980-81 winter peak without the Phase II facilities and that even though such facilities may be desirable, they are not essential for the 1980-81 peak demand period.

3 PIPELINE DESIGN

The Board is satisfied with the evidence presented by the applicant in the application and at the hearing regarding the design and operational safety of the pipeline.

4 ROUTE OF THE PIPELINE

4.1 Views of the Minister of the Environment

Under Section 26 of the Rules of Practice of the Energy Resources Conservation Board, Alberta Environment submitted a suggested alignment for the proposed pipeline in the Edmonton RDA. The Alberta Environment preferred alignment as shown on Figure 1, roughly parallels the applicant's Alternative No. 2 route, but swings north of the existing NUL right of way in section 9-54-24 W4M to connect to the Acheson transmission line.

The route for the most part is aligned within the pipeline corridor within the RDA. In the Alberta Environment submission, this proposed route was described as being the views of the Department of the Environment regarding the alignment of the proposed line within the Edmonton RDA based on policy adopted by the Alberta Government.

4.2 Views of the Applicant

NUL stated a preference for its proposed route which follows two existing NUL gas lines from Lsd 5-6-54-23 W4M to Lsd 13-9-54-24 W4M, shown as points (b) and (f) on Figure 1. The applicant contended that the existing 15-metre wide right of way which presently accommodates two pipelines could accommodate a third line as proposed.

The company cited the following reasons for preferring a route parallel to the two existing pipelines as opposed to any of the three routes within the RDA which were discussed at the hearing (Alternative routes 1 and 2 and the route suggested by Alberta Environment).

(a) Since the right of way already exists containing two pipelines, and could accommodate another pipeline, this would be a continuation of the corridor concept.

(b) Utilizing the existing right of way would concentrate company pipeline facilities within one corridor permitting more efficient and more effective operations and surveillance.

(c) Utilization of the existing right of way would enable NUL to proceed with the proposed looping program in three distinct phases with the completion of each phase as system demand requires. NUL contends that the selection of either Alternatives No. 1 or 2 to utilize more fully the pipeline corridor within the RDA would necessitate the total looping program being completed sooner than required.

(d) The existing right of way provides the most economic route. Any other alignment, including Alternatives No. 1 and 2 and the Department of the Environment's suggested alternative would require the acquisition of a new right of way. The cost of acquiring the new right of way would be a major factor in this regard. NUL also stated that Phase II would

be terminated at the existing valve station in Lsd 13-9-54-24 W4M because it would be the logical place to terminate the second phase of the looping program if the existing right of way was used and not because there would be any specific demand for gas at this location that could not be met with existing facilities. For this reason, either of Alternatives No. 1 and 2 appeared to be operationally and economically more attractive than the route proposed by the Department of the Environment.

(e) Since NUL has the right of way for its proposed route, but would have to obtain an additional right of way for any other route, the line could be completed in much less time if the proposed route were approved.

(f) The proposed route would not interfere with the intended use of the RDA in the foreseeable future; since NUL knew of no pipeline, power-line, or other facilities to be placed in the RDA in the near future.

During the hearing, the applicant did state general agreement for the corridor concept, and further agreed that proper long-range planning by all utilities should make use of predesignated corridors if such were available.

4.3 Views of the Board

The Board has considered the reasons put forward by NUL as justification for its preference to use the existing right of way, and has the following views regarding these arguments:

(a) The Board recognizes that NUL considers its existing right of way to be a pipeline "corridor". However, it is the Board's opinion that a pipeline corridor concept must be viewed in the longer term context and should provide for pipelines over a 20-or 30-year period rather than for only those pipelines existing or proposed today. The applicant's contention that the existing right of way is a "corridor" does not conform with the long-range planning aspects of the utility corridor concept.

(d) The Board agrees with the applicant that the operations and surveillance function may be made more simple by the grouping of pipelines, and indeed this is one of the objectives of placing pipelines in a designated corridor.

Again, however, it is the Board's view that this cannot be properly accomplished without the institution of longer term planning. This planning must provide not only for the development of pipelines but also for other types of utility facilities. Without the predesignation of the location for each type of development, the planning is relegated to placing the facility wherever there is land remaining.

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(c) From information submitted by the applicant, the Board does not anticipate that any severe economic impact would occur if Phase III of the looping program was completed before being required. The Board therefore does not see the earlier completion of Phase III to the existing No. 6 City Gate station or the equivalent construction to this end point with any of the other alternatives as having a negative effect on either the consumer or the company's operations.

(d) Although the applicant maintains that the existing right of way would provide the most economic route, the Board notes that the applicant's capital cost estimates show only about 5 per cent difference in cost between the NUL preferred route for Phase II and Phase III and Alternative No. 1. In view of the accuracy of cost estimating on most projects of this nature, the Board does not agree that there is an overriding cost penalty to the selection of the Alternative No. 1 route.

The Board also notes that the selection of the Alternative No. 2 route as opposed to the proposed route would result in a higher capital cost by about 28 per cent. The Board estimates that if the Department of the Environment's suggested route was utilized through section 9-54-24 W4M and then extended along the utility corridor to points (g) and (h) on Figure 1, the cost would be similar to Alternative No. 2 or some 30 per cent higher than for the proposed route.

(e) With respect to the timing of acquiring new rights of way for routes other than the NUL preferred route, the applicant stated at the hearing that since it anticipated using NUL labour to build Phase II and because of the limitation of those resources, there was little chance of completing the Phase II construction prior to the 1980-81 winter peak. The Board concurs that additional time would be required to acquire land for any of the alternative routes, however, the Board does not believe that the additional time required to acquire such property would be crucial in meeting the planning construction schedule and the demand for gas over the 1981-82 winter peak.

(f) The contention by NUL that its pipeline would not interfere with the intended use of the RDA in the near future because it knew of no other planned development within the RDA, does not, in the Board's view, coincide with the longer term planning objective of a transportation and utility corridor. If the corridor is to successfully achieve its intended long-term planning goal, placement of pipelines in the corridor must begin at some point in time. If at each time a new pipeline is planned, it is decided not to place it as the first pipeline in a designated corridor because no other specific lines are known of and intended for the corridor, it is clear that the designated corridor will never come into use. In other words, in order to implement a long-term corridor approach it is necessary to place a first line in the corridor even though at that time, existing circumstances might suggest that the short-term benefits are minimal. In summary, given that the pipeline corridor has been defined, the Board is of the opinion that it should be utilized by new pipeline projects wherever practicable.

5 SUMMARY OF BOARD CONCLUSIONS

As mentioned earlier in this report, the Board is satisfied that the applied for additional pipeline capacity is required to meet growing natural gas requirements in the North Edmonton area. However, it is the Board's view that the expanded capacity is not essential for the 1980-81 winter peak. The Board is also satisfied that the proposed pipeline facilities are adequately planned with respect to design, construction and operations.

Respecting the route selection, the Board subscribes to the corridor concept and believes it to be in the long-term public interest for utilities such as pipelines to be located in designated corridors wherever reasonable and practical. The Board recognizes that NUL's preferred route follows two existing pipelines, so to some extent can be considered a pipeline corridor. At the same time, the Board expects there will be additional pipelines in the area in future and believes these will not likely be placed in the existing NUL right of way. The Board is of the view that the placement of all future lines in the designated pipeline corridor, as described by the Minister of the Environment in Exhibit 1 at the hearing, would be more in keeping with the concept of long-term use of utility corridors. The utility corridor adopted by the government is illustrated in Figure 2. Also shown on the figure are the preferred and alternative routes proposed by NUL.

The Board acknowledges that utilization of the pipeline corridor for the proposed line would be more costly, due primarily to the need to acquire additional right of way, but in this particular case, does not believe the increased cost of some \$400 000 to \$500 000 to be an unreasonable burden to impose on the consumers of gas when compared to the public interest benefit of a long-range planned utility corridor. The Board's conclusion in this respect is particularly influenced by the proximity of the proposed facilities to a rapidly developing urban area. The Board also recognizes that use of the designated utility corridor would require the construction of Phase III of the project, connecting to the Paddle River transmission line sooner than is otherwise planned. It would also omit part of Phase II, the additional connection to the Acheson transmission line. The Board did not hear evidence from NUL indicating that the latter connection is essential, and indeed, the two NUL alternatives to its preferred route would not involve such a connection. Also, the Board does not believe that any economic penalty which might occur as a result of completing Phase II earlier than planned, would be severe.

The Board is of the view that the additional time to acquire a new right of way would not compromise the supply situation for NUL consumers, bearing in mind that the facilities are not needed for the 1980-81 winter season and the extent to which the government owns land within the RDA.

For the above reasons, the Board is not prepared to approve the NUL preferred route. The next question is whether either of the NUL Alternatives No. 1 or 2 satisfy the route requirements as seen by the Board. Alternative No. 1 follows the existing NUL pipeline for approximately the first one-half of its length and so, as is the case for the preferred route, does not fully meet the long-term corridor concept. Additionally, the designated corridor shown in Figure 2 suggests that this alternative would conflict with the planned highway interchange in the SE¼ of section 10-54-24 W4M. Indeed this planned interchange, plus the pressure to adhere to a long-term utility corridor, might eventually force the relocation of the existing NUL lines. The Board recognizes that Alternative No. 1 would be less expensive than a route in the designated corridor but, as mentioned earlier, does not believe the extra costs are such as to justify a departure from the long-term corridor concept in this instance. Accordingly, the Board is not prepared to approve NUL's Alternative No. 1.

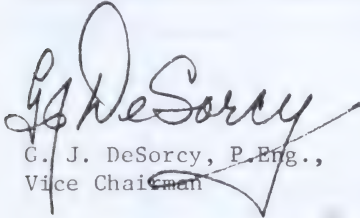
With respect to NUL's Alternative No. 2, the Board notes that it does adhere closely to the designated utility corridor as submitted to the hearing by the Minister of the Environment. A notable exception occurs at the east end of the line where the NUL proposal would follow its existing right of way through the SE¼ of section 1-54-24 W4M and then deflect north to the utility corridor. The highway interchange planned for that area, as shown on Figure 2, would require pipelines to by-pass the interchange either to the north or the south. Passage to the south via the existing NUL right of way might involve less conflict with the proposed interchange. Thus, the Board considers NUL's proposal to pass to the south to be reasonable.

In summary, the Board believes NUL's Alternative No. 2 to be acceptable from a long-range planning point of view and not unreasonably more expensive than available alternatives. The Board also believes a line on this route can be completed by the time it is needed to supply growing markets. Accordingly, the Board is prepared to approve NUL's alternative No. 2.

The Board is prepared to approve NUL's Alternative No. 2 as shown on Figure 2. It is requesting the approval of the Minister of the Environment as required under The Pipeline Act, 1975, and his consent as required under the Restricted Development Area Regulations. Upon receipt of the required approval and consent, the Board would issue a permit to NUL.

ISSUED at Calgary, Alberta, on 12 November 1980.

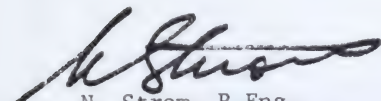
ENERGY RESOURCES CONSERVATION BOARD



G. J. DeSorcy, P. Eng.,
Vice Chairman



C. J. Goodman, P. Eng.,
Board Member



N. Strom, P. Eng.,
Board Member

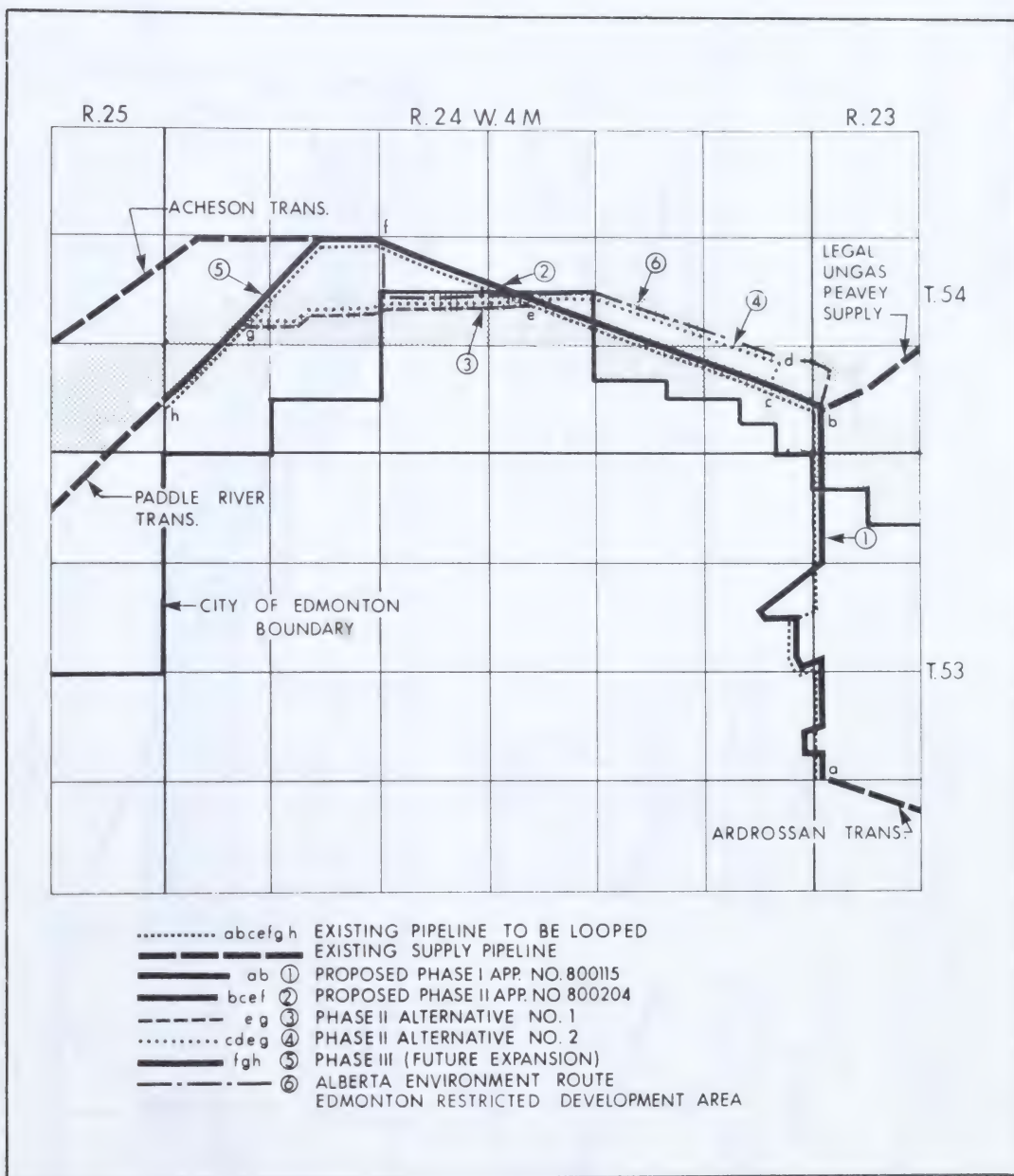


FIGURE 1 NORTHWESTERN UTILITIES LIMITED PROPOSED LOOP LINE - NORTH EDMONTON AREA

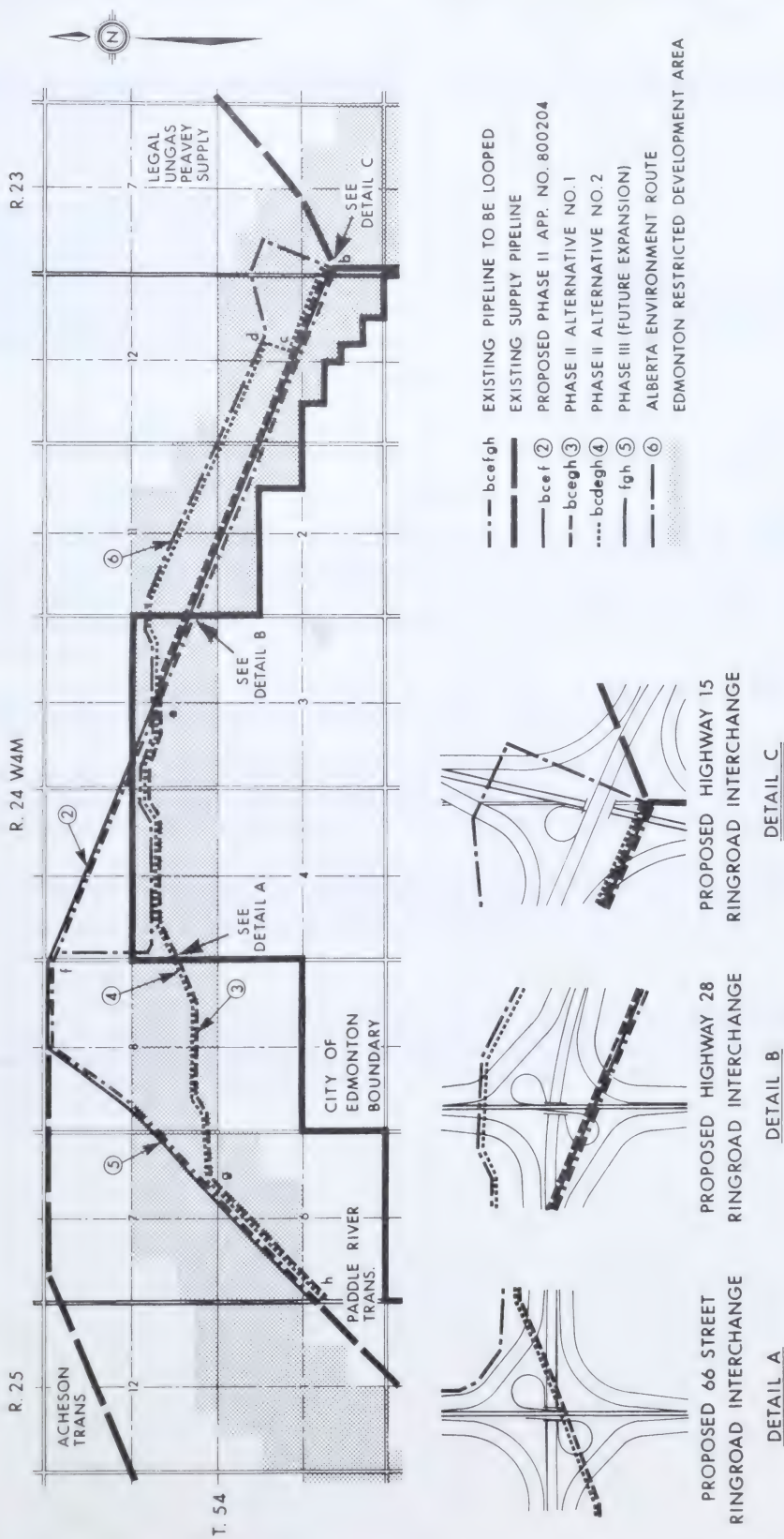


FIGURE 2 NORTHWESTERN UTILITIES LIMITED PROPOSED PHASE II, PHASE III, AND ALTERNATIVE LOOP LINE - NORTH EDMONTON AREA



2/ ENERGY RESOURCES CONSERVATION BOARD

Calgary/Alberta

DECISION ON THE REQUEST BY
CANADIAN WESTERN NATURAL GAS
COMPANY LIMITED, FOR PERMITS
TO CONSTRUCT PIPELINES FOR THE
TRANSMISSION OF NATURAL GAS
IN THE CALGARY AREA

3/ 4/ Decision Report 80-21
Applications 800462,
800490, 800433, 800492

1 INTRODUCTION

1.1 The Applications

Application 800462 is for a permit to construct a pipeline to transport natural gas from an existing Alberta Gas Trunk Line (AGTL) pipeline in Legal Subdivision 15, Section 20, Township 22, Range 3, West of the 5th Meridian, to a proposed regulator station in Lsd 16-19-22-1 W5M (Priddis Lateral A).

Application 800490 is for a permit to construct a regulator station in Lsd 16-19-22-1 W5M (the Turner Valley Gate Station).

Application 800433 is for a permit to construct a pipeline to transport natural gas from a proposed regulator station in Lsd 16-19-22-1 W5M, to a proposed regulator station in Lsd 13-23-22-1 W5M (Priddis Lateral B).

Application 800492 is for a permit to construct a regulator station in Lsd 13-23-22-1 W5M (the South Calgary Gate Station). The location of the proposed pipelines and regulator stations is shown in Figure 1.

1.2 The Hearing

A public hearing of the applications was held before The Energy Resources Conservation Board (Board) on 9-10 and 23-24 September 1980 in Calgary, Alberta, with V. E. Bohme, P.Eng., C. J. Goodman, P.Eng., and L. A. Bellows, P.Eng., sitting.

THOSE WHO APPEARED AT THE HEARING

Principals and Representatives
(Abbreviations Used in Report)

Witnesses

Canadian Western Natural Gas Company Ltd.
(CWNG)

N. D. McDermid

M. G. Woolfrey, P.Eng.
R. Wittmeir, P.Eng.
E. Porter, P.Eng.
G. Leinweber

R.Z. Holdings Ltd. (24)*,
Hartel Holdings Co. Ltd. (26),
Ulster Developments Ltd. (23),
M. Paperny (25), Trafalgar Investments
Ltd. (27)

J. D. Rooke

Arnold Investments Ltd. (32)

W. G. Hopkins

Rogers Pass Recreation Ltd. (29)

D. F. Irving

F. D. Southern, Mr. and Mrs. R. D. Southern,
Spruce Meadows Complex

H. M. Kay

B. K. O'Ferrall

Mrs. R. D. Southern (30)

Mr. and Mrs. W. Rauh

W. J. Hope-Ross

F. Rauh (8)

M. G. Arthurs

M. G. Arthurs (21)

Hope-Ross Group:

Big Springs Ranch Ltd. (31)

D. Brooks (17)

M. Brooks (18)

E. Caywood (12)

J. C. Drager (10)

B. French (28)

E. L. Gordon (9)

R. M. Hope-Ross (3)

W. Hope-Ross (2)

A. G. Kluzak (14)

D. Kluzak (15)

W. Rauh (7)

E. A. Sweeney (6)

E. G. Sweeney (5)

G. A. Van Wielingen (4)

J. M. Drager (11)

S. D. Southern (20)

A. G. Arthurs (22)

R. M. Hope-Ross (3)

W. Hope-Ross (2)

D. Brooks (17)

P. G. Lucas (13)

THOSE WHO APPEARED AT THE HEARING (Cont'd)

Principal and Representatives (Abbreviations Used in Report)

Witnesses

W. A. Waddell (1)

W. J. Hope-Ross

W. A. Waddell (1)

Energy Resources Conservation Board staff
(ERCB)

G. Dunn, P.Eng.

M. Bruni

B. Watling

Filed Written Interventions But Did Not Appear

Dorothy M. Very (16)

Roland A. Very (19)

* Indicates location of intervener's land on Figure 1.

1.3 Preliminary Matters

Upon completion of the evidence presented by the applicant, a motion for nonsuit was made by Mr. O'Ferrall on behalf of the Southern and Spruce Meadows Complex. In dismissing the motion and directing a continuation of the hearing, the Board indicated that there was at least some evidence before them supporting the route as selected and proposed by the applicant. Such evidence presented in support of the application included: close proximity to the Alberta Gas Trunk Line system, parallelling of Highway 22X to minimize impact on landowners, set-backs as required by Alberta Transportation and the Municipal District and route deviations based on landowners input.

2 ISSUES

In considering the applications, the Board decided that the following major issues were raised:

- 1 the need for the pipeline,
- 2 alternatives to the proposal by the applicant, and
- 3 the suitability of the route proposed by the applicant.

3 NEED FOR THE PIPELINE

3.1 The Evidence

CWNG stated that the pipeline was needed to provide gas supply during periods of peak demand in 1980-81 and to supply part of its normal demand in the future. It submitted historical supply/demand data which indicated that the peak demand has been increasing to the point where the pipeline system would not be capable of providing a planned contingency supply of 15 per cent above normal peak demand. The data indicated that the system would be capable of supplying only 4 per cent above the peak day maximum demand in 1980-81. The applicant stated that such a low safety margin could mean that service could be interrupted during critical demand periods. During the 1981-82 period there would be no safety margin available unless peaking gas became available before that time.

CWNG explained during the hearing that the recently approved MacKenzie lateral was not a source of peak supply, but rather a feeder line to supply gas to the southeast portion of the city of Calgary.

CWNG also indicated that an alternate source using a 46-km pipeline loop along its Carbon line and connected to Alberta Gas Trunk Line's Plains System, near Beiseker, was possible. It could not be installed in time to serve the 1980-81 peak period, and the design capacity would not be fully utilized until 1992, when the Priddis lateral and the Carbon loop would both be required. CWNG data indicated that regardless of which line was installed first, the cost over the next 20 years for either sequence of installation would be about the same.

In response to questions from interveners, CWNG stated that both the Jumping Pound and the Turner Valley pipelines were operating at full capacity and could not be considered as a source of extra peak supply.

3.2 Views of the Board

The Board concludes from the evidence presented by CWNG that the peak demand for gas in the Calgary system has increased at an accelerated rate since 1977-78. Over the same period the peaking supply potential has been levelling off, with a consequent reduction in the desired 15 per cent excess of peak supply over peak demand.

The Board considers that a safety factor of 15 per cent supply over peak demand is a reasonable target for this system and since the safety factor is projected to be reduced to about 4 per cent in 1980-81, the need for new sources of peaking gas is apparent. However, it appears to the Board that projected peak demands have been considerably in excess of actual peaks experienced in the past few years. While this difference is not a certainty for any future year, it indicates that the projected peak demands may be somewhat high and the expressed need for additional peaking gas supply may not be as urgent as claimed by the applicant.

4 ALTERNATIVE ROUTES EXAMINED BY THE APPLICANT OR PROPOSED BY INTERVENERS

The applicant described an alternate source of supply; the Carbon loop, which would also constitute an alternate pipeline route. CWNG also briefly discussed an alternative pipeline alignment north of Highway 22X but rejected it. The interveners suggested a number of alternatives involving different sources or routes. They included alternate sources or loops from Jumping Pound and Turner Valley; routes north or south of Highway 22X and an alternative routing to the Priddis Lateral B portion of the line.

In light of the Board's views expressed later in the report, and its decision regarding the application, the Board does not intend to comment further on these proposals.

5 THE ROUTE PROPOSED BY THE APPLICANT

5.1 The Applications

The applications made by CWNG are described generally in Section 1 and shown in Figure 1.

The application is for approval of the construction of a 406.4-mm high pressure (3965 KPa) gas pipeline from the AGTL Foothills pipeline near Priddis to two regulating stations to be built south of Calgary.

The pipeline would parallel Highway 22X south of the highway, proceeding east from the AGTL meter station for a distance of 2.4 kilometres; crossing to the north of the highway for about 4.8 kilometres, then crossing again to the south side where it would proceed to the two proposed regulator stations south of Calgary. The applicant stated the reason for the first highway crossing was to avoid an area of developed subdivision on the south side. The second crossing was made for two reasons; first, to avoid another area where residences conflicted with the pipeline route, and second, to allow the pipeline to be located closer to the highway. Alberta Transportation had indicated that the pipeline right of way must be set back 40 metres to the south of the highway, and 130 metres to the north to accommodate proposed highway expansion.

From the second highway crossing the line would proceed east, with a set-back 40 metres from the highway except near the Red Deer Lake School, where the line would be diverted south to avoid the school and an adjacent residence. The 40-metre south set-back would be increased to 179 metres before it entered the corridor in the Restricted Development Area (RDA). The line would continue through the corridor at the 179-metre set-back except for a diversion to the north to avoid buildings and a slough near the junction with Highway 2.

The Turner Valley Gate Station would be located at the junction of a supply line from Turner Valley and the proposed line. The South Calgary Gate Station would be located east of Highway 2 where the proposed Priddis lateral would join with CWNG's main lines.

The applicant indicated that the proposed route was chosen primarily because it offered the shortest distance between the AGTL supply and the proposed regulator stations and also because it followed Highway 22X where it would have minimum impact on expansion of Calgary's city limits. The alignment of the line with respect to the highway was determined by the minimum highway set-back required by the municipal district and Alberta Transportation. Within the corridor the line was routed in accordance with CWNG's understanding of the requirements of Alberta Environment, although CWNG stated that it would have preferred to locate the line closer to the highway.

5.2 Interveners' Submissions

The interveners expressed general opposition to the location of the proposed pipeline and suggested a number of possible alternative supply sources and pipeline routes. The set-backs imposed by the municipal district were not seriously questioned nor were those required by Alberta Transportation to accommodate a proposed highway widening.

There was general and vigorous opposition to the proposed location within the corridor, on the basis that the pipeline would be too close to some residences and would seriously impair any potential for construction of facilities on, or subdivision of, the properties along the line.

The most serious opposition dealt with the applicant's statement that the specific location of the line within the corridor had been chosen only to satisfy its understanding of the requirements of Alberta Environment. It was pointed out that no evidence had been adduced regarding the reasons for the location of the line within the corridor, except that it appeared to conform with a plan for a transportation and utility corridor and that no evidence had been submitted regarding the reasons for, or the details of, such a plan.

5.3 Views of the Board

The applicant's proposal to obtain gas to meet its peak demand needs from an AGTL pipeline nearest to its market in south Calgary is, in the Board's view, efficient and practical. The Board also is in agreement with the general concept of the development of corridors near expanding urban centres to lessen the impact of multiple rights of way.

With respect to the location of the proposed line north or south of Highway 22X the Board is of the opinion that the applicant did not provide

sufficient evidence to justify rejection of an alignment north of the highway. No topographic, land ownership or residence location maps were submitted to permit the Board to compare the north and south alternatives.

With respect to the location of the line within the corridor, the Board concludes that insufficient evidence was adduced by the applicant to justify a 179-metre set-back, nor was there sufficient evidence to indicate that such was a requirement of the Department of the Environment. Assuming that the corridor plan submitted by CWNG was substantially what the Department of the Environment has projected for the area, the Board believes that further explanation of the plan would be necessary before the Board could assess the proposed location of the pipeline with respect to the general intent and purpose of the corridor concept.

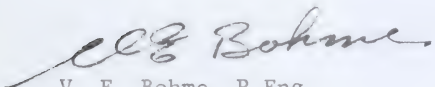
6 DECISION

The Board finds that CWNG did not provide sufficient evidence to justify the location of the proposed pipeline within the corridor nor did it present adequate evidence regarding its rejected alternative routing on the north side of Highway 22X. Therefore the Board denies the applications.

While the Board has indicated its views with respect to the need for the line and its general location, it would review these matters in connection with any subsequent application.

ISSUED at Calgary, Alberta, on 14 November 1980.

ENERGY RESOURCES CONSERVATION BOARD



V. E. Bohme, P.Eng.
Board Member



C. J. Goodman, P.Eng.
Board Member



L. A. Bellows, P.Eng.
Acting Board Member

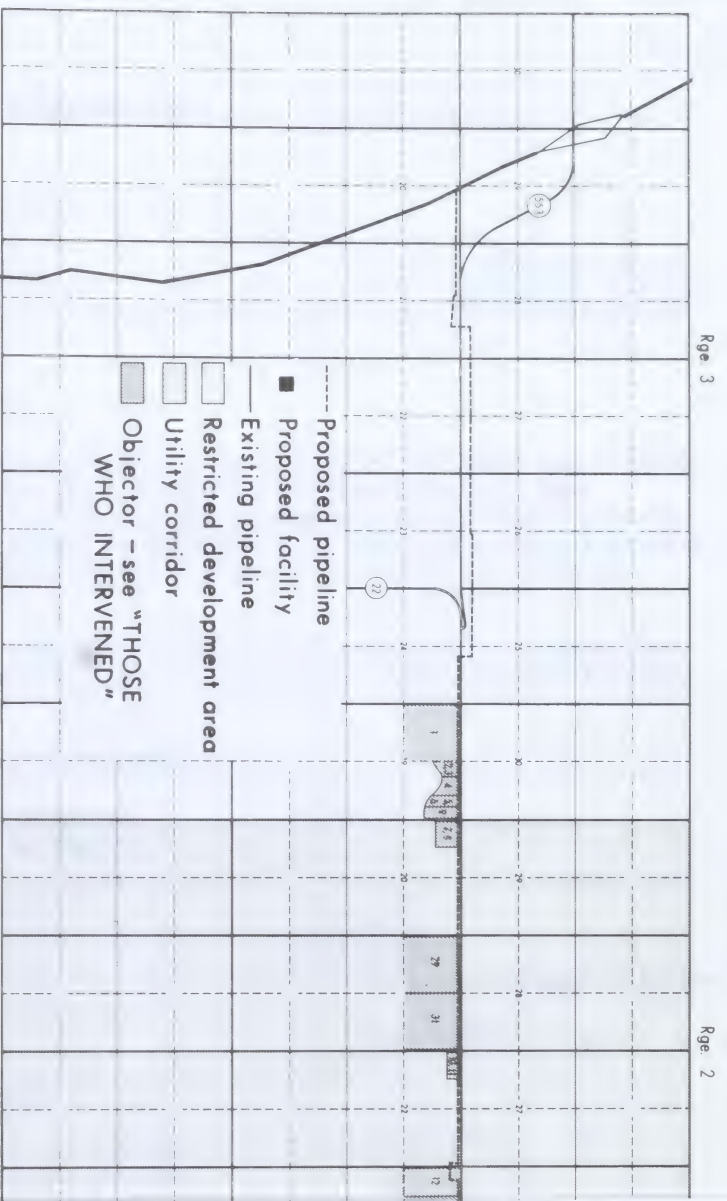


FIGURE 1 CWNG PROPOSED PRIDDIS LATERAL

ENERGY RESOURCES CONSERVATION BOARD
Calgary, Alberta

IN THE MATTER OF A
138 KV SUBSTATION IN
THE AIRDRIE AREA

Decision 80-22
Application 800369

1 INTRODUCTION

Mr. A. C. Tebb applied pursuant to section 13 of The Hydro and Electric Energy Act for approval to relocate the Calgary Power Ltd. East Airdrie substation CP 199S from its presently approved location in the SW $\frac{1}{4}$ 14-27-29 W4M to either of 2 locations in the East Airdrie Industrial Park. The currently approved and proposed locations are shown in Figure 1.

A public hearing to consider the application was held 3, 4, September 1980, with G. J. DeSorcy, P.Eng., V. E. Bohme, P.Eng., and J. A. Bray, P.Eng., sitting.

THOSE WHO APPEARED AT THE HEARING

PRINCIPALS AND REPRESENTATIVES
(Abbreviations Used in Report)

WITNESSES

Mr. A. C. Tebb
(Mr. Tebb)
L. M. Sali

A. C. Tebb
E. Burgoyne
E. Nichol, Town Manager, Airdrie

Calgary Power Ltd.
(Calgary Power)
R. M. Wilkinson

E. L. Murgatroyd, P.Eng.
R. D. Low, P.Eng.

G.I.C. Industries Ltd. (G.I.C.)
Woodland Properties Ltd. (Woodland)
Burnco Industries Ltd. (Burnco)
Don Beddoes Construction Ltd. (Beddoes)
C. G. Watkins

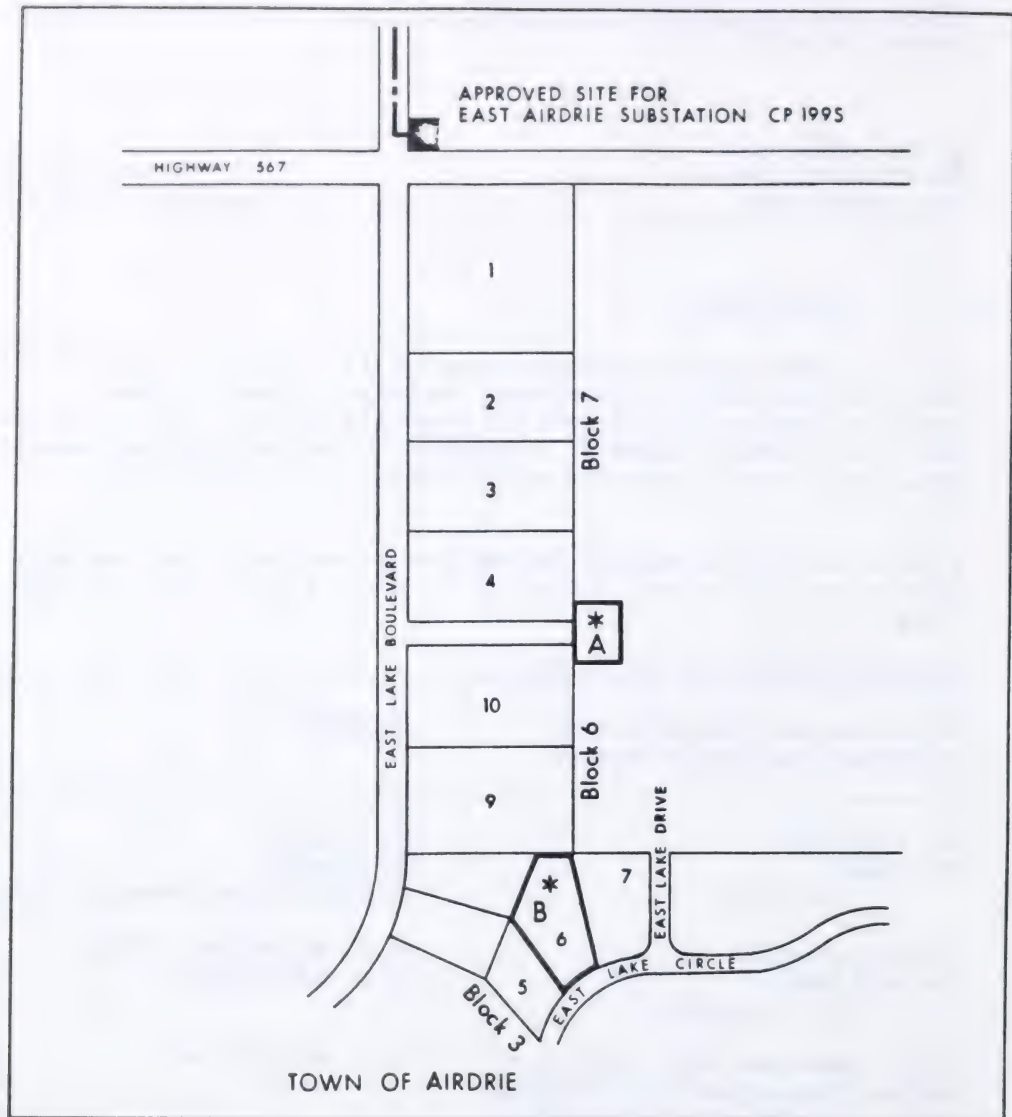
D. A. MacGillivray

Comanche Drilling Ltd.
(Comanche Drilling)
P. J. Caron

R. J. Collins

H. A. Hamilton
(Mr. Hamilton)

H. A. Hamilton



POSSIBLE SITES FOR RELOCATION OF
EAST AIRDRIE SUBSTATION CP 1995



ROUTE APPROVED FOR CALGARY POWER 138 kV
TRANSMISSION LINE CP 752L

FIGURE 1



Qualico Developments Ltd.
(Qualico)

G. Martin

Energy Resources Conservation Board

M. J. Bruni

R. L. Schroeder

J. W. Berg, P.Eng.

2 BACKGROUND TO THE APPLICATION AND DEFINITION OF THE ISSUES

2.1 Background to the Application

Calgary Power applied in April 1979 for approval to construct and operate the East Airdrie substation CP 199S and 138 kV transmission line CP 752L. The Board subsequently approved the application to construct the substation on Mr. Tebb's property in the SW $\frac{1}{4}$ 14-27-29 W4M. The substation has not been constructed as yet, although the related 138 kV transmission line is essentially completed. The present and proposed configuration of Calgary Power's 138 kV transmission system is shown in Figure 2.

2.2 Definition of the Issues

The Board considers the issues to be:

1. the need for the substation to serve the 1980/81 winter peak; and
2. the location of the substation.

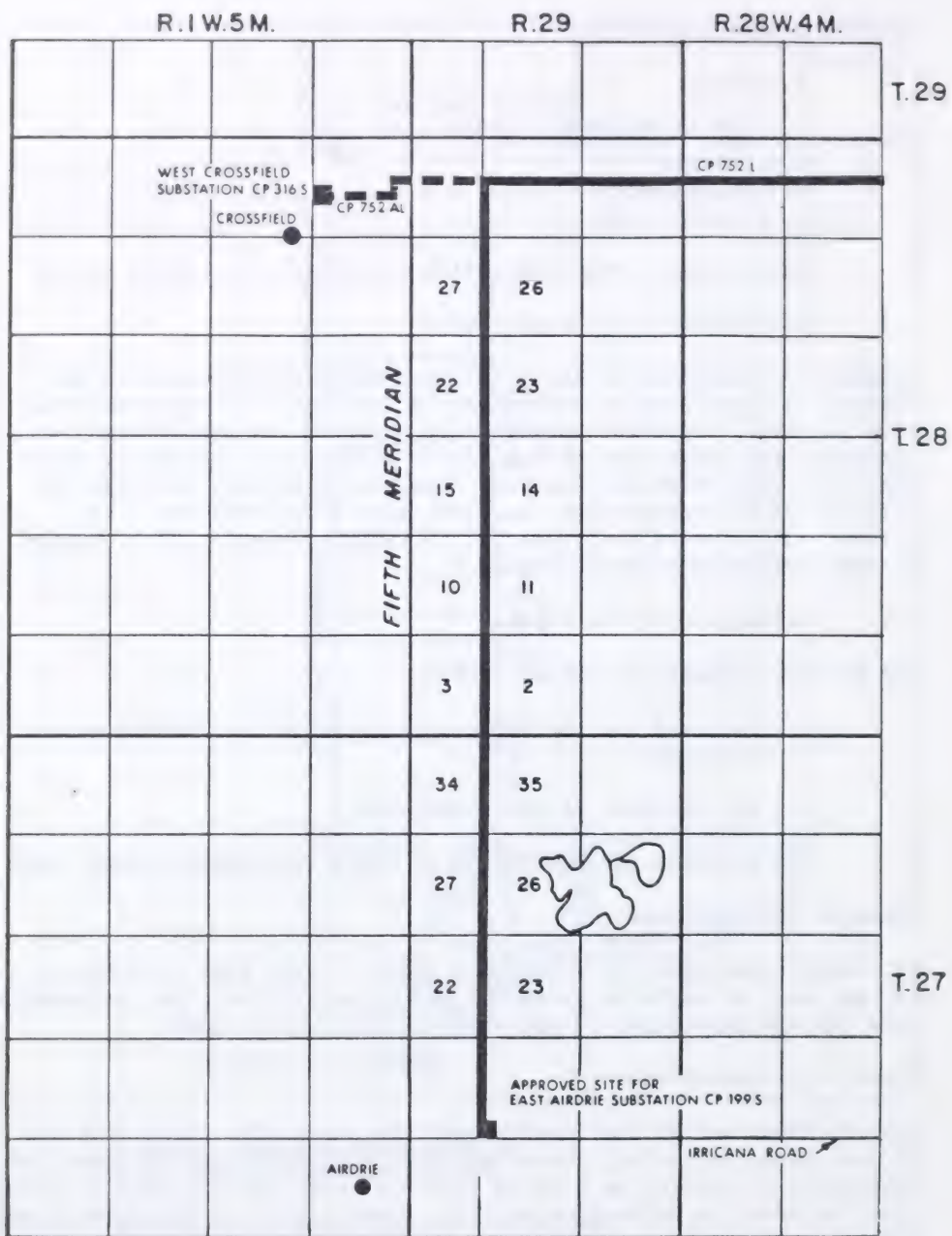
3 THE NEED FOR THE SUBSTATION TO SERVE THE 1980/81 WINTER PEAK

Views of the Applicant

Mr. Tebb stated that the population growth of the Town of Airdrie has not been as rapid as predicted and therefore there was no immediate need for the substation to serve the 1980/81 winter peak.

Views of the Interveners

Calgary Power stated that even though the population growth was not as previously projected, there was still a definite need to have the substation in service as soon as possible, even for the 1980/81 winter peak, in order to maintain a reliable power source to the Airdrie area. Other interveners did not speak to the matter of need for the substation.



Existing Calgary Power Ltd. transmission line CP 752 L

FIGURE 2

Views of the Board

The Board agrees with the applicant that due to slower than expected population growth in the Airdrie area, the electric load requirements at present may be somewhat less than had been anticipated when the substation was initially planned. Hence, the Board is of the view that although it would be advantageous it is not essential that Calgary Power have the East Airdrie substation in service in time to serve the 1980/81 winter peak.

4 LOCATION OF THE SUBSTATION

Views of the Applicant

Mr. Tebb said he expected that the quarter section upon which the proposed substation is now approved will become a residential subdivision in the near future.

Mr. Burgoyne, a land appraiser and planner, indicated that growth of residential subdivisions near Airdrie would be first to the west and the north-east. He indicated that the SW $\frac{1}{4}$ of 14-27-29 W4 was a logical parcel for future residential growth and that the entrance to the residential subdivision would likely be at the location of the approved substation site.

Mr. Burgoyne also expressed the view that a substation located on the approved site, and removing 5.5 acres of Mr. Tebb's property, would devalue the remaining quarter section of his land.

Mr. Tebb indicated that the substation would be more compatible with development in an industrial area than a residential area. He also said that since the proposed substation is needed, to a large extent, to serve the East Airdrie Industrial Park, it should be located within that Park. A portion of the East Airdrie Industrial Park is shown on Figure 1.

The applicant indicated that Calgary Power appeared to have a right-of-way about 660 feet east of East Lake Boulevard that could be used for transmission facilities to serve either proposed Sites A or B as shown on Figure 1. Site A is located on lands owned by Mr. Tebb and Qualico. Mr. Nichol, manager of the Town of Airdrie, stated that the town is presently trying to acquire lands upon which Site B is situated. Mr. Tebb, Qualico, and the Town of Airdrie if they acquire the necessary lands, stated that they were prepared to make land available to Calgary Power for the substation on either Site A or B. The applicant also indicated that the Town of Airdrie would be prepared to construct an access roadway into either Site A or B in a relatively short period of time.

Views of the Interveners

Calgary Power

Calgary Power objected to relocating the East Airdrie substation and supported building the substation on the presently approved site. It stated that the applicant did not present any new evidence at this hearing compared to what had been presented at the previous hearing. It also contended that there was no new evidence to support the claim that Mr. Tebb's property would become a residential subdivision.

Calgary Power stated that the applicant did not properly assess alternative transmission line routes that would be required to serve the present and future needs of the substation. It stated that five 138 kV transmission lines and four 25 kV distribution lines would ultimately be required to serve the East Airdrie substation by the mid 1980s. Calgary Power believed that if either Site A or B were chosen, access for present and future lines would be difficult since a right-of-way on private property would be required.

Calgary Power indicated that 5.5 acres are required for the approved substation site, whereas 16.5 acres and 18.5 acres for site A and B, respectively, would be required for the sites and related transmission line right-of-way. Calgary Power said if Site B were chosen both Lot 6 and a portion of Lot 7, Block 3, may be needed for the substation. Also, it noted that the Town of Airdrie made no offer of land for Site B.

Calgary Power indicated that the applicant did not properly assess the problems of road access to both proposed substation sites. It noted that placing a substation on Site A would interfere with the extension of an existing road allowance located between East Lake Boulevard and Site A.

Calgary Power indicated that a substation located in Site B and future transmission lines out of Site A may interfere with an existing cable television antennae located in the south-east corner of Lot 9, north of proposed substation Site B. Calgary Power also stated that it does not presently own any right-of-way east of East Lake Boulevard.

G.I.C.

Mr. MacGillivray, representing G.I.C., the owner of Lot 4, Block 7, objected to the relocation of the approved substation. G.I.C. proposed to use Lot 4 as a repair and manufacturing facility for large modular buildings and industrial camp structures. It was his contention that the necessary transmission lines needed to serve either proposed substation could affect present and future uses of the property.

Mr. MacGillivray stated that the applicant had not submitted any new evidence to indicate that a substation located in the East Airdrie Industrial Park would have any advantages over the approved location and that there was no evidence to support Mr. Tebb's claim that his property would be subdivided residentially.

Mr. MacGillivray indicated that Site A would block eastward extension of a road allowance which presently runs east from East Lake Boulevard. He also suggested that a longer and more costly transmission line would be required to serve the proposed substation.

Burnco, Woodland, and Beddoes supported the G.I.C. intervention.

Comanche Drilling

Comanche Drilling, the owner of Lot 1, Block 7, opposed relocating the substation to the Industrial Park and supported constructing the substation on the approved site.

Comanche Drilling was concerned that if either Site A or B were chosen, there would be overhead transmission lines adjacent to or crossing its property. The property is presently being used for storage and assembly of drilling equipment. Comanche Drilling was concerned that such a placement of transmission lines on or adjacent to its property would create a safety hazard.

Mr. Hamilton

Mr. Hamilton, the owner of lands located in the NW $\frac{1}{4}$ 14-27-29 W4M, proposed that the substation should be moved 1.5 miles north of the approved site. He stated a belief that the Town of Airdrie would expand to the north and that a substation should be located outside the town limits.

Views of the Board

The Board believes that relocating the East Airdrie substation 1.5 miles north of the approved site, as suggested by Mr. Hamilton, is not warranted. The Board notes that there was no substantive evidence to support this proposal and indeed no official application was registered with the Board.

The Board has assessed the relative merits of the two proposed substation locations and the approved site, on the basis of costs, compatibility with surroundings, and design and construction considerations.

Costs

In dealing with costs as related to the alternatives sites, the Board considered cost only to the extent that costs for a public utility such as Calgary Power would be passed on to the public and thus the question of costs is in the public interest. The Board has no jurisdiction respecting matters of compensation.

In evaluating the costs of Sites A and B, compared to the approved site the Board has taken into consideration that the proposed sites are currently zoned industrial whereas the approved site on Mr. Tebb's property is currently classified agricultural. The Board notes there is continuing uncertainty respecting the timing of any land-use classification changes affecting the Tebb quarter section that contains the approved substation. Nonetheless, the Board is of the view that the current land use designation is the appropriate one for costs estimation and thus, the Board believes that the costs of acquiring a unit of land in the industrial area would be higher than those of the approved site where the present land classification is agricultural.

The Board agrees with Calgary Power that additional land would be required for transmission line right-of-way to serve Sites A or B, compared to that needed for the approved site. These additional right-of-way costs, in the Board's view, would more than offset the need for more site area, required for set-back from the adjacent road allowances, at the approved site.

Having considered both the relative costs per unit of land and the total land requirements at each of the proposed sites, as compared to the approved site, the Board concludes that the approved site has the advantage with respect to costs and the resulting impact on the public interest.

Compatibility

In reviewing the concerns related to compatibility with surroundings of each of the alternative substation locations, the Board believes that in general a substation is more compatible with an industrial area than a residential area. It notes, however, that a substation located in the East Airdrie Industrial Park may interfere with the present and future uses of property owned by Comanche Drilling, G.I.C., and other landowners in the area. This could result in a safety hazard. The Board also notes that there may be access problems for present and future lines serving either Sites A or B, while it appears that future lines serving the approved site would largely be accommodated on road allowances.

The Board also notes that a substation located on Site A could interfere with the extension of an existing road allowance east of East Lake Boulevard. With respect to a substation at either of the proposed sites interfering with an existing microwave tower located north of Site B, the Board believes that this is not a serious problem but does result in a minor disadvantage to each of the proposed sites.

In summary, and taking into consideration site location and associated transmission lines, the Board sees no net advantage in terms of compatibility with surroundings of the proposed sites compared to the approved site. In fact, the Board believes the approved site will have less total impact on surroundings than either of Sites A or B. As was the case with respect to cost, the Board has had to factor into its judgement, the uncertainty respecting future use of Mr. Tebb's property.

Technical

With respect to design and construction matters, the Board believes there is no significant difference with respect to any of the three substation sites.

5 DECISION

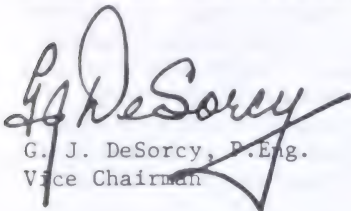
In summary, the Board believes the approved site has a cost advantage over each of the proposed sites since Mr. Tebb's property is currently classified agricultural. It also notes that additional transmission line right-of-way would be needed in the future to serve Sites A or B compared to what would be needed for the approved site.

In considering the impact on others, the Board notes that a substation located in the proposed sites may interfere with present and future use of industrial customers in the Park, could result in a safety hazard, and may cause access problems for present and future lines. The Board also notes that a substation located on Site A may interfere with expansion of an existing road allowance and that either of the proposed substations may interfere with an existing microwave tower.

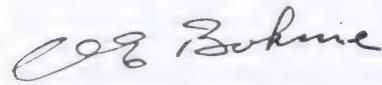
On this basis the Board concludes that there are no valid reasons to order relocation of substation CP 199S. Accordingly, it denies the application of Mr. Tebb.

ISSUED at Calgary, Alberta on 20 November 1980.

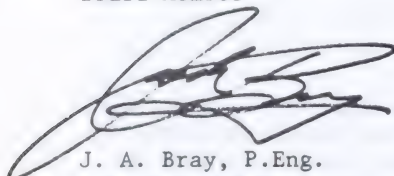
ENERGY RESOURCES CONSERVATION BOARD



G. J. DeSorcy, P.Eng.
Vice Chairman



V. E. Bohme, P.Eng.
Board Member



J. A. Bray, P.Eng.
Acting Board Member

On this basis the Board concludes that there are no valid reasons for
order relocation of submission of 1935. Accordingly it denies the
application of Mr. [Name]...

Issued at Calgary, Alberta on 10 November 1935.

EXACT REPRODUCTION OF ORIGINAL


J. H. [Name], Esq.
Vice President


J. E. [Name], Esq.
Vice President


J. E. [Name], Esq.
Vice President

